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## Patent

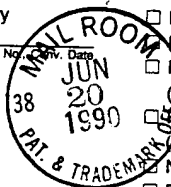


Serial No. 055,942 BBMB No. 1107.021635 Atty/Sec. DHH/LHP/ceg Date 6/20/90  
 Inventor Curt I. Civil Client JHU  
 Title Human Stem Cells and Monoclonal Antibodies

The following has been received in the U.S. Patent and Trademark Office on the date stamped hereon:

<input type="checkbox"/> pp Spec. _____ Claims	<input type="checkbox"/> Petition for Extension til _____
<input type="checkbox"/> Executed Declaration/Power of Atty	<input checked="" type="checkbox"/> Amendment: OA dtd <u>March 21, 1990</u>
<input type="checkbox"/> Unexecuted Declaration/Power of Atty	<input type="checkbox"/> Response: OA dtd _____
<input type="checkbox"/> Priority _____	<input type="checkbox"/> Response: Missing Parts Notice dtd _____
<input type="checkbox"/> Claim of Priority _____ Country, Appin. No., Div., Date	<input type="checkbox"/> Rule 1.60 Cont. _____ Div. _____ Application
<input type="checkbox"/> Priority Document	(Parent Ser. No. _____; Docket # _____)
<input type="checkbox"/> Informal Drawings _____ sheets	<input type="checkbox"/> Rule 1.62 Cont. _____ Div. _____ CIP Application
<input type="checkbox"/> Formal Drawings _____ sheets	(Parent Ser. No. _____; Docket # _____)
<input type="checkbox"/> Assignment	<input type="checkbox"/> Notice of Appeal & Fee
<input type="checkbox"/> Verified Statement	<input type="checkbox"/> Brief: _____ Appeal & Fee _____ Reply
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JUN 20 1990



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of	)	
CURT I. CIVIN	)	
	)	Group Art Unit: 186
Serial No. 055,942	)	Examiner: Cunningham
Filed: June 1, 1987	)	
For: HUMAN STEM CELLS AND	)	
MONOCLONAL ANTIBODIES	)	

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Honorable Commissioner of Patents  
and Trademarks  
Washington, D.C. 20231

Sir:

In accordance with 37 C.F.R. §§ 1.56 and 1.99, Applicant would like to provide the following information to the U.S. Patent and Trademark Office for use by the Examiner during prosecution of the subject application. The information consists of four documents representing four separate reports from the Fourth International Workshop and Conference on Human Leucocyte Differentiation Antigens published in a book entitled "Leucocyte Typing IV: White Cell Differentiation Antigens," ed. by Knapp, et al., published by Oxford University Press in 1989.

Peschel, et al., 1989, "M7 Cluster' Report: CD34," p. 817, reports that the antigen labelled by monoclonal antibodies (including My-10) of the cluster designated CD34 are expressed only by hematopoietic precursor cells (stem cells) in bone marrow or in peripheral blood and by endothelial cells in certain veins. Thus expression of the CD34 antigen identifies both myeloid and lymphoid progenitor cells.

Civin, et al., 1989, "M7.1 Report on the CD34 Cluster Workshop," p. 818, reports that the CD34 cluster antibodies, such as My-10, identify a heavily glycosylated transmembrane protein of apparent molecular weight 107-120kD. The cell population expressing the CD34 antigen contains virtually all hematopoietic colony-forming cells

found in human marrow or blood. Civin, et al., also note (on page 820) that at least one laboratory has reported finding the CD34 antigen to be missing from their line of KG1 cells. Civin, et al. report on a number of different monoclonal antibodies isolated in different laboratories, all of which are specific for the unique CD34 antigen.

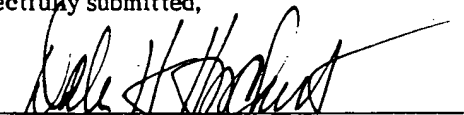
Lansdorp, et al., 1989, "M7.2 CD34 Epitopes," p. 826, reports on the effect of blocking experiments with 12 different antibodies prepared in a number of different laboratories, all of which were specific for the CD34 antigen. The various antibodies react with different epitopes on the same antigen.

Molgaard, et al., 1989, "M7.3 Molecular Characterization of Human and Murine CD34," p. 827, reports the properties of the antigen recognized by the CD34 cluster antibodies (such as My-10). The antigen is a cell surface glycoprotein of approximately 110 kD selectively expressed on human hematopoietic progenitor cells.

Copies of these references along with an accompanying form PTO-1449 are enclosed for the convenience of the Examiner.

Respectfully submitted,

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